Cub Foods

Lift Truck Training Material

(Forklifts and Power jacks)

Cub Foods
Lift Truck Training
Trainers Guide

This training manual has been prepared to provide store management with a comprehensive lift truck operator program. Before allowing associates to operate power-jacks and forklift trucks they must successfully complete this program. As an alternative, associates may be trained by having the manufacturer of the equipment provide certified training so long as it meets OSHA's Powered Industrial Truck standard 1910.178 (effective March 1, 1999) and documentation of each persons training provided to the store. In addition to the manufactures program, Cub Foods forklift training requirements as specified in the Training Checklist Section of this manual (Section 6 and 7) will be covered with the associate.

Only trained and certified associates are allowed to operate Cub Foods power jacks and forklift trucks. At no time shall non-employees (i.e. vendors, contractors) be allowed to operate this equipment.

In order for stores to train associates in the proper operation of power jacks and forklifts the trainer must have the knowledge, training and experience to train operators and evaluate their competence. This program incorporates the use of a third party to give the Cub Foods Trainer the prerequisite training to implement this program.

Cub Foods
Lift Truck Training
Trainers Guide

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SECTION 1: **PROGRAM MAKE-UP**

I. TRAINING MATERIALS

A. Cub Foods Lift Truck Training Manual

B. Crown's Training Programs.

1. "It's Up To You"

   WHO SEES- All lift truck operators
   HOW OFTEN- Every two years
   DOCUMENTATION- Quiz's from each segment

   Program contents:

   - Video (42 minutes in length)
   - Trainer's Manual with Test and Answers
   - Ten Operator Information Manuals
   - Driver Training Attendance Sheet
   - Operators Daily Checklist
   - OSHA standard 1919.178 Powered Industrial Trucks
   - Crown Lift Truck Maneuvering Training Guide
   - Ten Crown's Notice of Course Completion certificates
   - Operator Training Order Form

2. "Heavy-Duty Walkie Stacker"

   WHO SEES- All new Walkie Stacker lift truck operators
   HOW OFTEN- Video on initial training and performance test every two years
   DOCUMENTATION- Quiz and performance test

   Program contents:

   - Video (16 minutes in length)
   - Trainer's Manual with Test and Answers
   - Ten Operator Manuals
   - Driver Training Attendance Sheet
   - Operators Daily Checklist
   - OSHA standard 1919.178 Powered Industrial Trucks
   - Crown Lift Truck Maneuvering Training Guide
   - Ten Crown's Notice of Course Completion certificates
   - Operator Training Order Form

3. "Narrow Aisle Stand-up Rider Lift Truck"

SECTION 1: **PROGRAM MAKE-UP**

WHO SEES- All new Stand-up Rider lift truck operators
HOW OFTEN- Video on initial training and performance test every two years
DOCUMENTATION- Quiz and performance test

Program contents:

- Video (19 minutes in length)
- Trainer's Manual with Test and Answers
- Ten Operator Manuals
- Driver Training Attendance Sheet
- Operators Daily Checklist
- OSHA standard 1919.178 Powered Industrial Trucks
- Crown Lift Truck Maneuvering Training Guide
- Ten Crown's Notice of Course Completion certificates
- Operator Training Order Form

4. "Walkie Pallet Truck" (Pallet Jack)

WHO SEES- All new Walkie Pallet truck operators
HOW OFTEN- Video on initial training and performance test every two years
DOCUMENTATION- Quiz and performance test

Program contents:

- Video (12 minutes in length)
- Trainer's Manual with Test and Answers
- Ten Operator Manuals
- Driver Training Attendance Sheet
- Operators Daily Checklist
- OSHA standard 1919.178 Powered Industrial Trucks
- Crown Lift Truck Maneuvering Training Guide
- Ten Crown's Notice of Course Completion certificates
- Operator Training Order Form

II. PROGRAM CRITERIA

A. The Store Manager shall select the lift truck trainer on the basis of lift truck experience and training ability. In most cases this will be an Assistant Grocery Manager, Grocery Manager, or Assistant Store Manager.

- Trainers are required to go through an instructors training course. These courses are offered through your local safety counsel or by your local Crown dealership. See Appendix B for a listing of the local safety counsel in your area and your local Crown service representative.

SECTION 1: **PROGRAM MAKE-UP**

B. The Store Manager is responsible for obtaining the necessary number of keys, assigning them to the qualified drivers, and keeping a list of this information on file. (See the List of Authorized Operators Form in Section 10.) Extra keys can be obtained through the authorized lift truck supplier/service company

C. The Store Manager shall designate a team to be responsible for doing the main safety checks and insuring routine maintenance on the lift trucks. This should be documented for each lift truck and maintained in a file. (See example of the Safety Checklist in Appendix A.)

D. Managers are to allow those associates undergoing training in the operation of power jacks and forklifts to operate the equipment only while under close and constant supervision by a trained and certified operator. This shall continue until the operator and the supervisor are comfortable with the operators ability to drive the power jack and/or forklift safely. The operation of this equipment is to be limited to the back rooms. Before allowing associates to perform behind the wheel training, they must have successfully passed the classroom training.

SECTION 2: **TRAINER'S RESPONSIBILITIES**

I. PRESENT AND ADMINISTER ALL ASPECTS OF THE PROGRAM ACCORDING TO THE CUB FOODS TRAINING GUIDELINES (SECTION 4) AND CROWNS VIDEO PROGRAM.

II COMPLETE THE FOLLOWING PAPERWORK PROPERLY AND LEGIBLY, MAKING CERTAIN IT WILL BE FILED IN THE EMPLOYEE'S PERSONNEL FILE.

A. Lift-Truck Training Checklist (Located in Cub Foods Trainers Manual, Section 6 and 7)

B. Written Quizzes (Located in Crown's Trainers Manual)

C. Behind The Wheel Performance Tests (Located in Cub Foods Trainers Manual, Section 8)

D. Cub Foods Lift Truck Policies/Sign-off (Located in Cub Foods Trainers Manual, Section 5)

III. MAKE SURE EMPLOYEES WHO SUCCESSFULLY PASS THE PROGRAM ARE PLACED ON THE AUTHORIZED DRIVER LIST (Section 10) AND RECEIVE THE PROPER INSIGNIA (SHOWN BELOW) IDENTIFYING THEM AS AUTHORIZED LIFT-TRUCK OPERATORS. This includes the "Heavy Duty Walkie Stacker" "Power Pallet Truck" or "Narrow-Aisle Stand-Up Rider Lift Truck". The applicable insignia (decal) shall be worn on the employees name badge to easily identify them as being authorized to operate the lift truck.

Walkie Stacker

Power Pallet Truck (Power Jack)

Narrow-Aisle Stand-Up Rider

IV. REQUEST EACH OPERATOR TO PRODUCE A VALID DRIVER LICENCE AND REVIEW IT FOR ANY MOTOR VIHICLE DRIVING RESTRICTIONS, FOR EXAMPLE MUST WEAR CORRECTIVE EYEWEAR. IF THE OPERATOR DOES NOT HAVE A VALID DRIVER LICENCE THEY WILL HAVE TO HAVE THERE VISION SCREENED FOR CORRECTIVE LENSES. (This vision screening will be done at Cub Foods expense)

SECTION 3: **TRAINING REQUIREMENTS**

I. ALL LIFT-TRUCK OPERATORS MUST TAKE AND PASS ALL ASPECTS OF THIS COURSE ACCORDING TO THE TRAINING CHECKLIST (SECTIONS 6 AND 7) AND PRESENTATION GUIDLINES (SECTION 4).

A. New drivers must complete all training and pass all aspects of this course before they will be authorized to operate any of the lift trucks (forklift, power jacks). See training checklist for new operators (Section 6)

B. Present operators who have previously completed Cub Foods Lift Truck Training must take and pass all sections according to the re-certification checklist (Section 7) every two years to be re-certified in operation of any powered industrial truck (forklift, power jack).

C. Refresher training in relevant topics shall be provided to the operator when:

1. The operator has been observed to operate the vehicle in an unsafe manner.
2. The operator has been involved in an accident or near-miss incident.
3. The operator has received an evaluation that reveals that the operator is not operating the lift truck safely.
4. The operator is assigned to drive a different type of lift truck.
5. A condition in the workplace changes in a manner that could affect safe operation of the truck.

Example: If a forklift operator enters a trailer and the trailer wheels are not chocked, refresher training in the use of wheel chocks will be provided. Documentation of this training will be kept in the associate's personnel file.

II. NO PART OF THE COURSE SHALL BE WAIVED.
(However, operators with past experience may need little to no "behind the wheel" practice time before taking the performance test.)

III. ALL RIDER AND WALK BEHIND FORKLIFT TRUCK OPERATORS MUST HAVE A VALID DRIVER'S LICENSE ISSUED BY THE STATE TO OPERATE A MOTOR VEHICLE (CAR). This includes the "Walkie" Stacker models also. See Trainer Responsibilities (Section 2)

IV. ALL LIFT TRUCK OPERATORS MUST BE 18 YEARS OF AGE OR OLDER.

V. PASSING SCORES

A. Quizzes = 80% correct

B. Behind The Wheel Performance Tests = Must do all maneuvers correctly.

SECTION 3: **TRAINING REQUIREMENTS**

VI. TRAINING REQUIRMENTS FOR NON-CROWN EQUIPMENT

1. Classroom training
   - It's Up To You (Section 4)
   - Manufactures training program for equipment being trained to use.
   - Cub Foods and OSHA standards and policies. (Section 5, Appendix E)
   - Pre-shift forklift inspection (Appendix A)
2. Behind the wheel performance test for each piece of equipment being certified or re-certified to use. (Section 8)
3. Complete the Training Checklist for Non-Crown Equipment (Section 6 and 7)
4. Training in the proper use of a work cage (Appendix C)
5. Placed on the Cub Foods authorized forklift operator list (Section 10)

Note: If the powered industrial truck is a temporary replacement and it is a different model then the truck it is replacing, the manufactures sales representative should provide training to all associates who will be using the equipment.

SECTION 4: **PRESENTATION GUIDELINES**

I. CLASSROOM TRAINING - "IT'S UP TO YOU"

The "It's Up To You" training program will be presented to all new powered industrial truck (forklift, power jack) operators prior to the associate using any of the lift trucks and experienced operators will be required to attend this section of training to be recertified. Recertification will be done every two years.

A. Review Goals before starting each segment. These goals are outlined in Crowns "Trainers Manual"

B. Show the video "It's Up To You"
Segment 1 "Types, Features and Physics" (10 minutes)
Segment 2 "Inspecting Your Vehicle" (5 minutes)
Segment 3 "Driving Your Truck" (9.5 minutes)
Segment 4 "Load Handling" (4 minutes)
Segment 5 "Charging and Fueling" (8.5 minutes)
Segment 6 "Safety Concerns" (5 minutes)

C. After showing the video, the trainer should emphasize key points covered in the video. Refer to Crowns Trainers Manual provided with this video for discussion points after each segment. (5-10 minutes)

D. The trainer then has the trainee read Crowns "Operator Information Manual". (8-10 minutes)

E. The trainee then takes the quizzes after each segment. Quizzes are located in Crowns Trainers Guide (5-10 minutes)

F. The trainer and trainee correct the quizzes together before starting the next segment. Quiz answers are located in Crowns Trainers Guide (5-10 minutes)

G. Continue onto the next segment until all segments have been completed.

*Encourage trainee questions.

SECTION 4: **PRESENTATION GUIDELINES**

II. CLASSROOM TRAINING - "YOU AND YOUR NARROW AISLE RIDER"

Note: If you do not have a Crown Rider Reach Truck and you are using another manufactures Rider Reach Truck, this section can be substituted with an equivalent program from the manufacturer if the program covers the operational features of the Rider Reach Truck.

This training program will be given to all new rider reach truck operators prior to the associate using the lift truck. Associates observed to be operating in violation of any safety standards will have their certification revoked and will be required to re-take this training program. Associates evaluated to be operating the Narrow Aisle Rider safely will not be required to retake this program to be re-certified. However forklift operators will have to watch the "Stand-up Rider Operator Safety" video.

A. Review Goals of the training program before starting the video. These goals are outlined in Crowns "Trainers Manual"

B. Show the video "You And Your Narrow Aisle Rider". (19 minutes)

C. Show the video "Stand-up Rider Operator Safety". (11 minutes)

D. After showing the video, the trainer should emphasize key points covered in the video. These key points can be found in Crown's Narrow Aisle Stand-up Rider Trainers Manual provided with the video. (5-10 minutes)

E. The trainer then has the trainee read Crown's "Operator Manual" for the narrow aisle stand up rider lift truck. (5-10 minutes)

F. The trainee then takes the quiz located in the Crowns Trainers Guide. (5-10 minutes)

G. The trainer and trainee correct the quiz together. Answers to quiz located in Crowns Trainers Guide. (5-10 minutes)

*Encourage trainee questions.

SECTION 4: **PRESENTATION GUIDELINES**

III. CLASSROOM TRAINING - "YOU AND YOUR WALKIE"

Note: If you do not have a Crown Walkie Reach Truck and you are using another manufactures Walkie Reach Truck, this section can be substituted with an equivalent program from the manufacture if the program covers the operational features of the Walkie Reach Truck. If you do not have a Walkie Reach Truck you can skip this training.

This training program will be given to all new walkie reach truck operators prior to the associate using the lift truck. Associates observed to be operating in violation of any safety standards will have their certification revoked and will be required to re-take this training program. . Associates evaluated to be operating the Walkie Stacker safely will not be required to retake this program to be re-certified.

A. Review Goals of the training program before starting the video. These goals are outlined in Crowns "Trainers Manual" provided with your video.

B. Show Video "Series W/WR/WB Heavy-Duty Walkie Stackers". (16 minutes)

C. After showing the video, the trainer should emphasize key points covered in the video. These key points can be found in Crown's Heavy-Duty Walkie Stacker Trainers Manual. (5-10 minutes)

D. The trainer then has the trainee read Crown's "Operator Manual" for the Heavy-Duty Walkie Stacker. (5-10 minutes)

E. The trainee then takes the quiz located in the Crowns Trainers Guide. (5-10 minutes)

F. The trainer and trainee correct the quiz together. Answers to quiz located in Crowns Trainers Guide. (5-10 minutes)

*Encourage trainee questions.

SECTION 4: **PRESENTATION GUIDELINES**

IV. CLASSROOM TRAINING - "YOU AND YOUR WALKIE PALLET TRUCK"

Note: If you do not have a Crown Pallet Truck and you are using another manufactures Pallet Truck, this section can be substituted with an equivalent program from the manufacture if the program covers the operational features of the Pallet Truck.

This training program will be given to all new power jack operators prior to the associate using the power jack. Associates observed to be operating in violation of any safety standards will have their certification revoked and will be required to re-take this training program. . Associates evaluated to be operating the Walkie Pallet Truck safely will not be required to retake this program to be re-certified.

A. Review Goals of the training program before starting the video. These goals are outlined in Crowns "Trainers Manual" provided with your video.

B. Show Video "Series PW 3000 Walkie Pallet Trucks". (12 minutes)

C. After showing the video, the trainer should emphasize key points covered in the video. These key points can be found in Crown's Walkie Pallet Truck Trainers Manual. (5-10 minutes)

D. The trainer then has the trainee read Crown's "Operator Manual" for the Walkei Pallet Truck. (5-10 minutes)

E. The trainee then takes the quiz located in Crowns Trainers Guide. (5-10 minutes)

F. The trainer and trainee correct the quiz together. Answers to quiz located in Crowns Trainers Guide. (5-10 minutes)

*Encourage trainee questions.

V. CLASSROOM TRAINING - "CUB FOODS AND OSHA STANDARDS AND POLICIES." All trainees are required to attend this portion of the program including those who are being re-certified on any of the powered industrial trucks (Forklifts, Walkie Stackers, and Powered Pallet Trucks)

A. Cub Foods Policies and OSHA Standards are presented by the trainer. (10-15 minutes)

B. Trainee signs and dates Cub Foods Policies and Procedures form. (Section 5)

C. Potential Accidents and Potential Operator Mistakes are presented by the trainer. (Section 9)

SECTION 4: **PRESENTATION GUIDELINES**

VI. BEHIND THE WHEEL TRAINING – "NARROW AISLE RIDER" LIFT TRUCK
This training is required for all new operators and current operators who need re-certification. However, operators with past experience may need little to no "behind the wheel" practice time before taking the performance test

A. Trainer explains and demonstrates the various items listed in the Performance Test (Section 8).

B. Trainee is given the opportunity to ask questions, try the various maneuvers, and practice until they are done correctly. (Practice of all maneuvers should first be done without a load.) New forklift operators will not be allowed to take the performance test until the trainer and the trainee are comfortable with the trainees' ability to drive the forklift safely.

C. Trainer explains and demonstrates the proper use of the forklift work cage. (See Appendix C)

D. When the trainee feels ready, the behind the wheel performance test is given. (See Section 8)

VII. BEHIND THE WHEEL TRAINING - " WALKIE STACKER" LIFT TRUCK.
This training is required for all new operators and current operators who need re-certification. However, operators with past experience may need little to no "behind the wheel" practice time before taking the performance test

A. Trainer explains and demonstrates the various items listed in the Training Outline.

B. Trainee is given the opportunity to ask questions, try the various maneuvers, and practice until they are done correctly. (Practice of all maneuvers should first be done without a load.) New forklift operators will not be allowed to take the performance test until the trainer and the trainee are comfortable with the trainees' ability to drive the forklift safely.

C. When the trainee feels ready, the behind the wheel performance test is given. (See Section 8)

SECTION 4: **PRESENTATION GUIDELINES**

VIII. BEHIND THE WHEEL TRAINING - "WALKIE PALLET TRUCK"
This training is required for all new operators and current operators who need re-certification. However, operators with past experience may need little to no "behind the wheel" practice time before taking the performance test

A. Trainer explains and demonstrates the various items listed in the performance test.

B. Trainee is given the opportunity to ask questions, try the various maneuvers, and practice until they are done correctly. (Practice of all maneuvers should first be done without a load, as the person becomes confident the maneuvers can then be done with a load.)

C. When the trainee feels ready, the performance test is given. (See Section 8)

SECTION 5: **POLICIES/SIGN-OFF**

1. The following policies are in addition to the OSHA (Occupational Safety and Health Administration) standards for powered industrial trucks, and both sets of policies and standards are to be followed by all Cub Foods associates.

2. ONLY AUTHORIZED PERSONNEL are allowed to operate lift trucks, both rider and walkie models. "AUTHORIZED PERSONNEL"meaning only those employees that have TAKEN and PASSED ALL ASPECTSof the approved lift truck training program.

3. AT NO TIME shall a vendor or contractor be allowed to operate any of Cub Foods powered industrial trucks (Fork lifts, Pallet Trucks, Walkie Stackers)

4. Personnel cannot be raised on the forks of a forklift truck without the use of an aerial work-stage platform (cage), which must be anchored properly to the forklift truck.

5. Forklift and pallet jack operators will not allow passengers to ride on the forklift or pallet jack. This includes and is not limited to riding or being raised on pallets.

6. Forklift trucks are not allowed on the sales floor between the hours of 8:00 AM and 10:00 PM, unless the operator has the permission of the "manager in charge" and the assistance of a spotter at all times.

    - Spotters will walk ahead of the forklift when the forklift is traveling and the spotter will provide warning to the forklift operator of the presents of customers and associates.
    - When product is being forked onto or removed from the sales floor racking a spotter will be used to direct customers and associates away form the forklift operating area.

7. UNATTENDED TRUCKS, 25 feet or more away from the operator or out of the operator's view, shall have the forks fully lowered, controls neutralized, brakes set, power shut off, and the ignition key removed.

8. UNATTENDED TRUCKS, within 25 feet and still in view of the operator, must have the forks fully lowered controls neutralized, and the brakes set.

9. Forklift "rider" trucks should not be driven into or onto trucks or trailers. Exceptions have been made for stores that load cardboard bails into trailers. Under these conditions forklift operators must inspect the trailer floor to assure its safe to drive the forklift onto. Forklift operators will also check to make sure the trailer wheels are blocked (chocked) to prevent the trailer from shifting. If dock boards are used they will be of sufficient load capacity to handle the weight of the forklift and the load.

10. No modifications or additions shall be made to forklift trucks without the prior written approval of the Cub Foods Corporate Risk Management (Corporate Stores) or the Store Manager (Franchise Stores).

11. Cub Foods employees who operate powered industrial trucks will report to their managers the use of any over-the-counter drugs and any side effects that could affect the ability to safely operate machinery before beginning their shift. The use of some over-the-counter drugs may slow workers reflexes, impair the ability to concentrate, make decisions, drive a vehicle or operate machinery.

12. Forklifts are not to be used to push, pull or tow other forklifts at any time.

13. Never drive the forklift with your foot, arms or legs outside the driver's compartment of the forklift this includes Cowboying" the forklift, (that is drive with your toes outside the forklift).

14. Never exit the forklift before it stops. Step down off the forklift verses jumping off.

15. Never stand on the break with your right foot and hang your left foot outside the driver's compartment.

16. Never put your foot out to attempt to stop the forklift, you will crush your foot.

17. When approaching cross aisles, passing through doors or other blind areas the operator shall slow down and sound the horn.

18. When ever practical the forklift is to be driven with the forks trailing.

19. No climbing or standing on any portion of the forklift that is not specifically designed for standing or climbing. This includes and is not limited to the forklift mast and overhead guard.

EMPLOYEE ACKNOWLEDGMENT
I have read and had the chance to ask questions about Cub Foods Powered Industrial Truck Policies. By signing this signature page, I confirm that I understand the material presented and that I must utilize and conform to the procedures outlined in this training.

Employee Signature:_____ Date:_____

SECTION 6: TRAINING CHECKLIST

A: FORKLIFT (NEW OPERATOR)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has viewed the "Narrow Aisle Stand-Up Rider" training video.

_____ _____ _____ 5. Has viewed the "Stand-Up Rider Operator Safety Video"

_____ _____ _____ 6. Has read the " Narrow Aisle Stand-Up Rider " operator manual.

_____ _____ _____ 7. Has taken " Narrow Aisle Stand-Up Rider " quiz and corrected it with trainer.

_____ _____ _____ 8. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 9. Has completed Behind The Wheel " Narrow Aisle Stand-Up Rider " Lift Truck performance training. (Section 4)

_____ _____ _____ 11. Has passed the Behind The Wheel " Narrow Aisle Stand-Up Rider " Lift Truck performance test. (Section 8)

_____ _____ _____ 12. Has presented to the trainer a "valid" state driver's license (car). *Necessary for "Rider" and "Walkie" Stacker Lift Truck authorization only.

_____ _____ _____ 13. Has gone over the proper usage of the forklift work cage. (Appendix C)

_____ _____ _____ 14. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____

TRAINEE'S SIGNATURE / DATE TRAINER'S SIGNATURE / DATE

SECTION 6: TRAINING CHECKLIST

B: WALKIE STACKER (NEW OPERATOR)

STORE LOCATION:_____

TRAINEE NAME:_____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has viewed the "Heavy Duty Walkie Stacker" training video.

_____ _____ _____ 5. Has read the " Heavy Duty Walkie Stacker " operator manual.

_____ _____ _____ 6. Has taken " Heavy Duty Walkie Stacker " quiz and corrected it with trainer.

_____ _____ _____ 7. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 8. Has completed Behind The Wheel "Heavy Duty Walkie Stacker" Lift Truck performance training. (Section 4)

_____ _____ _____ 9. Has passed the Behind The Wheel "Heavy Duty Walkie Stacker" Lift Truck performance test. (Section 8)

_____ _____ _____10. Has presented to the trainer a "valid" state driver's license (car). *Necessary for "Rider" and "Walkie" Stacker Lift Truck authorization only.

_____ _____ _____11. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____ _____12. Has gone over the proper usage of the forklift work cage. (Appendix C)

_____ _____

TRAINEE'S SIGNATURE / DATE TRAINER'S SIGNATURE / DATE

SECTION 6: TRAINING CHECKLIST

C: POWERED PALLET JACK (NEW OPERATORS)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has viewed the " Walkie Pallet Truck" training video.

_____ _____ _____ 5. Has read the "Walkie Pallet Truck" operator manual.

_____ _____ _____ 6. Has taken "Walkie Pallet Truck" quiz and corrected it with trainer.

_____ _____ _____ 7. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 8. Has completed Behind The Wheel "Walkie Pallet Truck" performance training. (Section 4)

_____ _____ _____ 9. Has passed the Behind The Wheel "Walkie Pallet Truck" performance test. (Section 8)

_____ _____ _____10. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____
TRAINEE'S SIGNATURE / DATE TRAINER'S SIGNATURE / DATE

SECTION 6: TRAINING CHECKLIST

D: FORKLIFT (NEW OPERATOR NON-CROWN EQUIPMENT)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has viewed the manufactures forklift training video.

_____ _____ _____ 5. Has read the manufactures narrow aisle stand-up rider operator manual.

_____ _____ _____ 6. Has taken manufactures forklift quiz and corrected it with trainer.

_____ _____ _____ 7. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 8. Has completed Behind The Wheel " Narrow Aisle Stand-Up Rider " Lift Truck performance training. (Section 4)

_____ _____ _____ 9. Has passed the Behind The Wheel " Narrow Aisle Stand-Up Rider " Lift Truck performance test. (Section 8)

_____ _____ _____10. Has presented to the trainer a "valid" state driver's license (car). *Necessary for "Rider" and "Walkie" Stacker Lift Truck authorization only.

_____ _____ _____11. Has gone over the proper usage of the forklift work cage. (Appendix C)

_____ _____ _____12. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____
TRAINEE'S SIGNATURE / DATE TRAINER'S SIGNATURE / DATE

SECTION 6: TRAINING CHECKLIST

E: WALKIE STACKER (NEW OPERATOR NON-CROWN EQUIPMENT)

STORE LOCATION:_____

TRAINEE NAME:_____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has viewed the manufactures walkie stacker training video.

_____ _____ _____ 5. Has read the manufactures walkie stacker operator manual.

_____ _____ _____ 6. Has taken manufactures walkie stacker quiz and corrected it with trainer.

_____ _____ _____ 7. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 8. Has completed Behind The Wheel "Heavy Duty Walkie Stacker" Lift Truck performance training. (Section 4)

_____ _____ _____ 9. Has passed the Behind The Wheel "Heavy Duty Walkie Stacker" Lift Truck performance test. (Section 8)

_____ _____ _____10. Has presented to the trainer a "valid" state driver's license (car). *Necessary for "Rider" and "Walkie" Stacker Lift Truck authorization only.

_____ _____ _____11. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____ _____12. Has gone over the proper usage of the forklift work cage. (Appendix C)

_____ _____
TRAINEE'S SIGNATURE / DATE TRAINER'S SIGNATURE / DATE

SECTION 6: TRAINING CHECKLIST

F: POWERED PALLET JACK (NEW OPERATORS NON-CROWN EQUIPMENT)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has viewed the manufactures" Walkie Pallet Truck" training video.

_____ _____ _____ 5. Has read the manufactures "Walkie Pallet Truck" operator manual.

_____ _____ _____ 6. Has taken the manufactures "Walkie Pallet Truck" quiz and corrected it with trainer.

_____ _____ _____ 7. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 8. Has completed Behind The Wheel "Walkie Pallet Truck" performance training. (Section 4)

_____ _____ _____ 9. Has passed the Behind The Wheel "Walkie Pallet Truck" performance test. (Section 8)

_____ _____ _____ 10. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ TRAINEE'S SIGNATURE / DATE

_____ TRAINER'S SIGNATURE / DATE

SECTION 7: TRAINING CHECKLIST

A: FORKLIFT (RECERTIFICATION)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has viewed the "Stand-Up Rider Operator Safety Video"

_____ _____ _____ 5. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 6. Has passed the Behind The Wheel " Narrow Aisle Stand-Up Rider " Lift Truck performance test. (Section 8)

_____ _____ _____ 7. Has presented to the trainer a "valid" state driver's license (car). *Necessary for "Rider" and "Walkie" Stacker Lift Truck authorization only.

_____ _____ _____ 8. Has gone over the proper usage of the forklift work cage. (Appendix C)

_____ _____ _____ 9. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____
TRAINEE'S SIGNATURE / DATE TRAINER'S SIGNATURE / DATE

SECTION 7: TRAINING CHECKLIST

B: WALKIE STACKER (RECERTIFICATION)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 5. Has passed the Behind The Wheel "Heavy Duty Walkie Stacker" Lift Truck performance test. (Section 8)

_____ _____ _____ 6. Has presented to the trainer a "valid" state driver's license (car). *Necessary for "Rider" and "Walkie" Stacker Lift Truck authorization only.

_____ _____ _____ 7. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____ _____ 8. Has gone over the proper usage of the forklift work cage. (Appendix C)

_____ TRAINEE'S SIGNATURE / DATE

_____ TRAINER'S SIGNATURE / DATE

SECTION 7: TRAINING CHECKLIST

C: POWERED PALLET JACK (RECERTIFICATION)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 5. Has passed the Behind The Wheel "Walkie Pallet Truck" performance test. (Section 8)

_____ _____ _____ 6. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____

TRAINEE'S SIGNATURE / DATE TRAINER'S SIGNATURE / DATE

SECTION 7: TRAINING CHECKLIST

D: FORKLIFT (RECERTIFICATION NON-CROWN EQUIPMENT)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 5. Has passed the Behind The Wheel " Narrow Aisle Stand-Up Rider " Lift Truck performance test. (Section 8)

_____ _____ _____ 6. Has presented to the trainer a "valid" state driver's license (car). *Necessary for "Rider" and "Walkie" Stacker Lift Truck authorization only.

_____ _____ _____ 7. Has gone over the proper usage of the forklift work cage. (Appendix C)

_____ _____ _____ 8. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ TRAINEE'S SIGNATURE / DATE

_____ TRAINER'S SIGNATURE / DATE

SECTION 7: TRAINING CHECKLIST

E: WALKIE STACKER (RECERTIFICATION NON-CROWN EQUIPMENT)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 5. Has passed the Behind The Wheel "Heavy Duty Walkie Stacker" Lift Truck performance test. (Section 8)

_____ _____ _____ 6. Has presented to the trainer a "valid" state driver's license (car). *Necessary for "Rider" and "Walkie" Stacker Lift Truck authorization only.

_____ _____ _____ 7. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ _____ _____ 8. Has gone over the proper usage of the forklift work cage. (Appendix C)

_____ _____
TRAINEE'S SIGNATURE / DATE TRAINER'S SIGNATURE / DATE

SECTION 7: TRAINING CHECKLIST

F: POWERED PALLET JACK (RECERTIFICATION NON-CROWN EQUIPMENT)

STORE LOCATION: _____

TRAINEE NAME: _____ TRAINER NAME: _____

DIRECTIONS: INITIAL AND DATE AS TRAINING MATERIAL IS COVERED. WHEN COMPLETED, ATTACH PERTINENT QUIZZES AND FINAL WRITTEN AND BEHIND THE WHEEL PERFORMANCE TESTS TO THIS CHECKLIST, AND PLACE IN THE EMPLOYEE'S STORE FILE.

TRAINER/DATE/TRAINEE

_____ _____ _____ 1. Has viewed the "It's Up To You" training video.

_____ _____ _____ 2. Has read the "It's Up To You" operator information manual.

_____ _____ _____ 3. Has taken the "It's Up To You" quizzes and corrected them with trainer.

_____ _____ _____ 4. Has read, discussed and signed the Cub Foods powered industrial truck Policies/Sign-off and OSHA Standards. (Section 5 and Appendix E)

_____ _____ _____ 5. Has passed the Behind The Wheel "Walkie Pallet Truck" performance test. (Section 8)

_____ _____ _____ 6. Has reviewed with the trainer the potential forklift accidents and potential operator mistakes. (Section 9)

_____ TRAINEE'S SIGNATURE / DATE

_____ TRAINER'S SIGNATURE / DATE

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
NARROW AISLE STAND-UP RIDER

	YES	NO	N/A
1. SAFETY INSPECTION PRIOR TO USE			
2. PROPER USE OF CONTROLS:			
A. CLUTCH OPERATION			
B. BRAKING			
C. PLUGGING			
D. INCHING CONTROL (AUTO TRANSMISSIONS)			
E. RAISE			
F. LOWER			
G. REACH			
H. RETRACT			
I. TILT			
J. SIDE SHIFT			
K. ATTACHMENT CONTROLS			
L. EMERGENCY BATTERY DISCONNECT			
M. STEERING CONTROLS			
N. PROPER POSITIONING OF ALL CONTROLS FOR AN UNATTENDED TRUCK OUT OF THE OPERATOR'S VIEW			
1. FORKS LOWERED			
2. CONTROLS NEUTRALIZED			
3. BRAKES SET			
4. POWER SHUT OFF			
5. IGNITION KEY REMOVED			

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
NARROW AISLE STAND-UP RIDER

	YES	NO	N/A
3. TRAVELING SKILLS			
A. SMOOTH STARTS			
B. SMOOTH STOPS			
C. FORWARD			
D. REVERSE			
E. RIGHT TURNS			
F. LEFT TURNS			
G. PROPER SPEED			
H. FIGURE EIGHTS			
I. DRIVING AROUND OBSTACLES			
J. LOOKS IN DIRECTION OF TRAVEL			
K. CARRIES FORKS LOW			
L. CLEARS OBSTACLES BY SAFE DISTANCE			
4. SELECTING LOADS			
A. PROPER CAPACITY FOR TRUCK			
B. PROPER SIZE LOAD FOR VISIBILITY AND SAFETY OF HANDLING			
C. PROPER PALLET PREPARATION (RESTACKING, TAPING, ETC.)			
5. PICKING UP A LOADED PALLET			
A. FROM THE FLOOR			
1. APPROACH			
2. TRUCK AND FORK ALIGNMENT			
3. FORK SPREAD			
4. FORK INSERTION			
5. LOAD TILTED BACK AGAINST BACK-REST			
6. RAISING			

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
NARROW AISLE STAND-UP RIDER

	YES	NO	N/A
B. FROM THE PALLET RACKING			
1. APPROACH			
2. TRUCK AND FORK ALIGNMENT			
3. FORK SPREAD			
4. FORK INSERTION			
5. LOAD TILTED BACK AGAINST BACK-REST			
6. RAISING			
7. REMOVING FROM RACKING			
C. FROM OFF ANOTHER PALLET			
D. REMOVES LOAD & LOWERS TO PROPER HEIGHT BEFORE MAKING A TURN OR TRAVELING.			
6. TRAVELING WITH A LOAD			
A. PROPER FORK HEIGHT			
B. SMOOTH STARTING			
C. SMOOTH STOPPING			
D. PROPER SPEED			
E. RIGHT TURNS			
F. LEFT TURNS			
G. SOUNDS HORN AT INTERSECTIONS & CORNERS			
H. USES VERBAL WARNING WHEN NECESSARY			
I. KEEPS TO THE RIGHT IN AISLES USED FOR TWO WAY TRAFFIC			
J. TRAVELS AT LEAST THREE LENGTHS BEHIND OTHER VEHICLES			
K. HANDLES LOAD IN A MANNER TO PREVENT PRODUCT DAMAGE			

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
NARROW AISLE STAND-UP RIDER

	YES	NO	N/A
7. STACKING			
A. APPROACH			
B. STACKS STRAIGHT AND SQUARELY			
C. DOES NOT TIER TOO HIGH			
D. DEPOSITS LOAD SAFELY			
E. NO EXCESSIVE TILT ACTION			
8. WORKSTAGE PLATFORM/CAGE			
A. POSITIONED PROPERLY ON FORKS			
B. CHAINED TO BACK-REST OF FORKLIFT			
9. DOCK SAFETY			
A. CHECKED BRIDGE PLATES (DOCK BOARDS) BEFORE CROSSING			
B. CHECKED TRAILERS FOR PROPER WHEEL CHOCKING OR BLOCKING BEFORE ENTERING AND PROPER JACK INSTALLATION OF TRAILERS WHERE REQUIRED			
C. CHECK TRILER BED FOR GOOD CONDITION			

TRAINEE_____ DATE_____

TRAINEE'S SIGNATURE_____

TRAINER_____ DATE_____

TRAINER'S SIGNATURE_____

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
WALKIE POWERED PALLET TRUCK

	YES	NO	N/A
1. SAFETY INSPECTION PRIOR TO USE			
2. PROPER USE OF CONTROLS:			
A. BRAKING			
B. PLUGGING			
C. RAISE			
D. LOWER			
E. STEERING CONTROLS			
F. PROPER POSITIONING OF ALL CONTROLS FOR UNATTENDED TRUCK OUT OF OPERATORS VIEW			
1. FORKS LOWERED			
2. CONTROLS NEUTRALIZED			
3. BRAKES SET			
4. POWER SHUT OFF			
5. IGNITION KEY REMOVED			
3. TRAVELING SKILLS			
A. SMOOTH STARTS			
B. SMOOTH STOPS			
C. FORWARD			
D. REVERSE			
E. RIGHT TURNS			
F. LEFT TURNS			
G. PROPER SPEED			
H. FIGURE EIGHTS			
I. DRIVING AROUND OBSTACLES			
J. LOOKS IN DIRECTION OF TRAVEL			
K. CLEARS OBSTACLES BY SAFE DISTANCE			

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
WALKIE POWERED PALLET TRUCK

	YES	NO	N/A
4. SELECTING LOADS			
A. PROPER CAPACITY FOR TRUCK			
B. PROPER SIZE LOAD FOR VISIBILITY AND SAFETY OF HANDLING			
C. PROPER PALLET PREPARATION (RESTACKING, TAPING, ETC.)			
5. PICKING UP A LOADED PALLET			
A. FROM THE FLOOR			
1. APPROACH			
2. TRUCK AND FORK ALIGNMENT			
3. FORK INSERTION			
4. RAISING			
B. PUTTING DOWN LOAD			
1. PROPERLY POSITION PALLET INTO THE DESIRED AREA			
2. LOWERS PALLET TO FLOOR PROPERLY ENSURING NO OBSTACLES OR FEET ARE IN THE WAY			
6. TRAVELING WITH A LOAD			
A. PROPER FORK HEIGHT			
B. SMOOTH STARTING			
C. SMOOTH STOPPING			
D. PROPER SPEED			
E. RIGHT TURNS			
F. LEFT TURNS			
G. SOUNDS HORN AT INTERSECTIONS & CORNERS			
H. USES VERBAL WARNING WHEN NECESSARY			
I. KEEPS TO THE RIGHT IN AISLES USED FOR TWO WAY TRAFFIC			

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
WALKIE POWERED PALLET TRUCK

	YES	NO	N/A
(TRAVELING WITH A LOAD continued)			
J. TRAVELS AT LEAST THREE LENGTHS BEHIND OTHER VEHICLES			
K. HANDLES LOAD IN A MANNER TO PREVENT PRODUCT DAMAGE			
7. DOCK SAFETY			
A. CHECKED BRIDGE PLATES (DOCK BOARDS) BEFORE CROSSING			
B. CHECKED TRAILERS FOR PROPER WHEEL CHOCKING OR BLOCKING BEFORE ENTERING AND PROPER JACK INSTALLATION OF TRAILERS WHERE REQUIRED			
C. CHECK TRILER BED FOR GOOD CONDITION			

TRAINEE_____ DATE_____

TRAINEE'S SIGNATURE_____

TRAINER_____ DATE_____

TRAINER'S SIGNATURE_____

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
WALKIE STACKER LIFT TRUCK

	YES	NO	N/A
1. SAFETY INSPECTION PRIOR TO USE			
2. PROPER USE OF CONTROLS:			
A. BRAKING			
B. PLUGGING			
C. RAISE			
D. LOWER			
E. REACH			
F. RETRACT			
G. TILT			
H. SIDE SHIFT			
I. ATTACHMENT CONTROLS			
J. EMERGENCY BATTERY DISCONNECT			
K. STEERING CONTROLS			
L. PROPER POSITIONING OF ALL CONTROLS FOR AN UNATTENDED TRUCK OUT OF THE OPERATOR'S VIEW			
1. FORKS LOWERED			
2. CONTROLS NEUTRALIZED			
3. BRAKES SET			
4. POWER SHUT OFF			
5. IGNITION KEY REMOVED			

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
WALKIE STACKER LIFT TRUCK

	YES	NO	N/A
3. TRAVELING SKILLS			
A. SMOOTH STARTS			
B. SMOOTH STOPS			
C. FORWARD			
D. REVERSE			
E. RIGHT TURNS			
F. LEFT TURNS			
G. PROPER SPEED			
H. FIGURE EIGHTS			
I. DRIVING AROUND OBSTACLES			
J. LOOKS IN DIRECTION OF TRAVEL			
K. CARRIES FORKS LOW			
L. CLEARS OBSTACLES BY SAFE DISTANCE			
4. SELECTING LOADS			
A. PROPER CAPACITY FOR TRUCK			
B. PROPER SIZE LOAD FOR VISIBILITY AND SAFETY OF HANDLING			
C. PROPER PALLET PREPARATION (RESTACKING, TAPING, ETC.)			
5. PICKING UP A LOADED PALLET			
A. FROM THE FLOOR			
1. APPROACH			
2. TRUCK AND FORK ALIGNMENT			
3. FORK SPREAD			
4. FORK INSERTION			
5. LOAD TILTED BACK AGAINST BACK-REST			
6. RAISING			

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
WALKIE STACKER LIFT TRUCK

	YES	NO	N/A
B. FROM THE PALLET RACKING			
1. APPROACH			
2. TRUCK AND FORK ALIGNMENT			
3. FORK SPREAD			
4. FORK INSERTION			
5. LOAD TILTED BACK AGAINST BACK-REST			
6. RAISING			
7. REMOVING FROM RACKING			
C. FROM OFF ANOTHER PALLET			
D. REMOVES LOAD & LOWERS TO PROPER HEIGHT BEFORE MAKING A TURN OR TRAVELING.			
6. TRAVELING WITH A LOAD			
A. PROPER FORK HEIGHT			
B. SMOOTH STARTING			
C. SMOOTH STOPPING			
D. PROPER SPEED			
E. RIGHT TURNS			
F. LEFT TURNS			
G. SOUNDS HORN AT INTERSECTIONS & CORNERS			
H. USES VERBAL WARNING WHEN NECESSARY			
I. KEEPS TO THE RIGHT IN AISLES USED FOR TWO WAY TRAFFIC			
J. TRAVELS AT LEAST THREE LENGTHS BEHIND OTHER VEHICLES			
K. HANDLES LOAD IN A MANNER TO PREVENT PRODUCT DAMAGE			

SECTION 8: **BEHIND THE WHEEL PERFORMANCE TEST**
WALKIE STACKER LIFT TRUCK

	YES	NO	N/A
7. STACKING			
A. APPROACH			
B. STACKS STRAIGHT AND SQUARELY			
C. DOES NOT TIER TOO HIGH			
D. DEPOSITS LOAD SAFELY			
E. NO EXCESSIVE TILT ACTION			
8. WORKSTAGE PLATFORM/CAGE			
A. POSITIONED PROPERLY ON FORKS			
B. CHAINED TO BACK-REST			
9. DOCK SAFETY			
A. CHECKED BRIDGE PLATES (DOCK BOARDS) BEFORE CROSSING			
B. CHECKED TRAILERS FOR PROPER WHEEL CHOCKING OR BLOCKING BEFORE ENTERING AND PROPER JACK INSTALLATION OF TRAILERS WHERE REQUIRED			
C. CHECK TRILER BED FOR GOOD CONDITION			

TRAINEE_____ DATE_____

TRAINEE'S SIGNATURE_____

TRAINER_____ DATE_____

TRAINER'S SIGNATURE_____

SECTION 9: **POSSIBLE ACCIDENTS THAT MAY HAPPEN IN A RETAIL SETTING**

1. DRIVING OFF THE LOADING DOCK.
2. CUSTOMERS STRUCK BY FALLING PRODUCT.
3. DAMAGING DISPLAY CASES/PRODUCE GRAPE CATCHERS.
4. FORKS PUNCHED THROUGH DELI CASES.
5. OVERHEAD SPRINKLER/GAS PIPES BENT.
6. BACK REST ON LIFT TRUCK HITS THE FRONT BEAM OF THE PALLET RACKING AND LIFTS IT OFF ITS' SUPPORTS.
7. BUMPING ANKLES INTO FORKS THAT HAVEN'T BEEN LOWERED.
8. BREAKING SPRINKLER HEADS OFF.
9. BREAKING DOORS AND DOORFRAMES OFF.
10. PUSHING WALLS OUT.
11. PUSHING TIPS OF FORKS INTO FRAGILE MEAT COOLER WALLS.
12. CRUSHED TOES, FEET, ARMS, HANDS, ETC.
13. LOADS DROPPING OFF THE FORKS.
14. SKIDDING OUT OF CONTROL ON WET FLOORS.
15. STARTLING CUSTOMERS WITH THE HORN AND POSSIBLEY CAUSING THEM TO FALL.
16. STEPPING OFF/JUMPING OFF FORKLIFT BEFORE IT COMES TO A COMPLETE STOP CAUSING FOOT TO BE HIT BY WHEEL OF FORKLIFT.

SECTION 9: **POSSIBLE OPERATOR MISTAKES**

1. FORGETTING ABOUT CUSTOMER AND EMPLOYEE SAFETY.
2. FORGETTING THAT CUSTOMERS AND EMPLOYEES HAVE THE RIGHT OF WAY.
3. GOING TOO FAST AND NOT BEING ABLE TO REACT QUICK ENOUGH.
4. NOT FOLLOWING THE RECOMMENDED TIMES THAT MANAGEMENT HAS SET FOR LIFT TRUCKS ON THE SALES FLOOR.
5. NOT USING THE CAGE WHEN LIFTING SOMEONE UP.
6. ALLOWING PASSENGERS TO RIDE ON THE TRUCKS.
7. DRIVING WITH THE FORKS RAISED AND/OR EXTENDED.
8. DRIVING ON SEMI-TRAILERS.
9. ALLOWING VENDORS AND NON-EMPLOYEES TO OPERATE THE TRUCKS.
10. DOUBLE STACKING PALLETS ON PALLET RACK BAYS
11. PUSHING A PALLET FORWARD OR MOVING IT FROM THE SIDE BY RAMMING IT WITH THE FORKS OR FORK LIFT.
12. STACKING PALLETS IN AN UNEVEN MANNER OR OFF CENTERED.
13. STACKING A HEAVIER PALLET ON A LIGHTER ONE. (i.e. Pallet o canned goods on a pallet of potato chips)

SECTION 10: **LIST OF AUTHORIZED LIFT TRUCK OPERATORS**
"NARROW-AISLE STAND-UP RIDER"

Name	Date of Training	Date of Evaluation	Trainer	Drivers License Number/State	Corrective Vision Y/N

SECTION 10: **AUTHORIZED LIFT TRUCK OPERATORS**

"WALKIE POWERED PALLET TRUCK"

Name	Date of Training	Date of Evaluation	Trainer	Drivers License Number/State	Corrective Vision Y/N

SECTION 10: **LIST OF AUTHORIZED LIFT TRUCK OPERATORS**
"WALKIE STACKER"

Name	Date of Training	Date of Evaluation	Trainer	Drivers License Number/State	Corrective Vision Y/N

APPENDIX A: **Forklift Inspection Checklist**

CUB FOODS
FORKLIFT DAILY INSPECTION

Truck Ser. No.	Dept.	Your Name:

Sun Date __/__/__	Mon Date __/__/__	Tue Date __/__/__	Wed Date __/__/__	Thu Date __/__/__	Fri Date __/__/__	Sat Date __/__/__

CHECK ANY DEFECT BELOW WITH (X), LOCK OUT TRUCK, GIVE DETAILS BELOW AND NOTIFY MANAGER IN CHARGE. If no deficiencies found write in OK below the date of inspection.
(If during operation, the truck becomes unsafe in any way, the matter shall be reported to a manager, and the truck shall not be operated until it has been restored to safe operating condition).

	DAMAGE: bent, dented, or broken parts		KEY SWITCH: key not broken or left in when unattended
	LEAKS: drive unit, brakes, hydraulics		STEERING: no binding, no excessive play
	TIRES & WHEELS: drive wheels, load wheels, casters		TRAVEL CONTROLS: all speed ranges, forward & reverse, no unusual noise
	FORKS: in place, properly secured		BRAKES: stop truck within required distance, work smoothly, brake override functions
	CHAINS, CABLES & HOSES: in place		PARKING BRAKE: seat, hand, foot
	SAFETY DEVICES: flashing lights, indicator lights, safety shield, warning labels		BATTERY CHARGE: discharge meter in full green or 75% charge after raising forks
	BATTERY: water level, vent caps in place, cleanliness		POWER DISCONNECT: cuts off all electric power
	BATTERY CONNECTOR: cracked, burnt, tight fitting		ATTACHMENTS: function properly, no unusual noise
	GUARDS: overhead, load backrest, battery retainer		LIMIT SWITCHES: travel limit, lift limit, tilt limit, etc.
	HOUR METER: operating		HORN: sounds

Notes: _____

Do not make repairs or adjustments unless specifically authorized to do so.

If all items are OK then keep checklist on truck until end of week, then turn into the manager for filling. Keep completed checklist on file for three months.

CUB00321 (03/99)

APPENDIX B: LOCAL SAFETY COUNCIL AND CROWN REPRESENTATIVE (By State)

Colorado Safety Association
4730 Oakland Street, Suite 500
Denver, CO 80239
Phone: (303)373-1937
(800)727-0519
FAX: (303)373-1955

Hoosier Safety Council
3410 N. High School Rd., Suite E
Indianapolis, IN 46224
Phone: (317)328-8303
(800)537-5346
FAX: (317)328-8307

Iowa-Illinois Safety Council
Merle Hay Centre
6200 Aurora Ave., Suite 502 W
Des Moines, Iowa 50322-2838
Phone: (515)276-4724
(800)568-2495
FAX: (515)276-8038

Minnesota Safety Council
474 Concordia Avenue
St. Paul, MN 55103-2430
Phone: (651)291-9150
(800)444-9150
FAX: (651)291-7584

Safety & Health Council of
Western Missouri & Kansas
901 Charlotte
Kansas City, MO 64106-2871
Phone: (816)842-5223
FAX: (816)842-6226

St. Joseph Safety & Health Council
118 S. 5th, Lower Level
St. Joseph, MO 64501
Phone: (816)233-3330
FAX: (816)233-8343

Safety Council of Greater St. Louis
1015 Locust Street, Suite 902
St. Louis, MO 63101
Phone: (314)621-9200
FAX: (314)621-9204

Nebraska Safety Council
4600 Valley Road, Suite 300
Lincoln, Nebraska 68510-4844
Phone: (402)483-2511
(888)704-7233

Safety & Health Council of
Greater Omaha, Inc.
11620 M Street
Omaha, Nebraska 68137-2229
Phone: (402)896-6332
(800)592-9004
FAX: (402)896-6331

Greater Cleveland Safety Council
The Hanna Building
1422 Euclid Avenue, Suite 539
Cleveland, Ohio 44115-1901
Phone: (216)621-0059
FAX: (216)621-0062

Safety Council of Central Ohio
37 North High Street
Columbus, Ohio 43215
Phone: (614)225-6933
FAX: (614)221-1408

Dayton/Miami Valley Safety Council
1 Chamber Plaza, Suite 200
Dayton, Ohio 45402-2400
Phone: (937)226-8256
FAX: (937)226-8254

Greater Hamilton Safety Council
840 High Street
Hamilton, Ohio 45011
Phone: (513)896-5333
FAX: (513)896-5334

APPENDIX B: LOCAL SAFETY COUNCIL AND CROWN REPRESENTATIVE (By State)

Safety Council of Middletown Area
29 City Centre Plaza
Middletown, Ohio 45042
Phone: (513)423-9758
FAX: (513)423-9759

Safety Council of Northwest Ohio
2602 Nebraska Avenue
Toledo, Ohio 43607
Phone: (419)535-1400
(877)457-1818
FAX: (419)535-0501

Northeast Ohio Chapter
National Safety Council
25 East Boardman Street
Youngstown, Ohio 44503
Phone: (330)747-8657
(800)715-0358
FAX: (330)747-6141

Wisconsin Council of Safety
501 East Washington Avenue
Madison, Wisconsin 53703
Phone: (608)258-3400
(800)236-3400
FAX: (608)258-3413

APPENDIX B: LOCAL SAFETY COUNCIL AND CROWN REPRESENTATIVE (By State)

Crown Lift Trucks
N16 W23120 Stoneridge Drive
Waukesha, WI
(414)695-0950
Mark Mayo
*Appleton
Madison
Green Bay

Crown Lift Trucks
430 E. Plainfield Road
LaGrange, IL 60525
(708)354-9600
Gene Hoffman
*Chicago

OKI Systems
7640 Moller Road
Indianapolis, IN 46268
(317)875-7233

Crown Lift Trucks
750 Center Drive, Box 400
Vandalia, OH 45377
(937)276-6161
Ron Haley
*Dayton

Crown Lift Trucks
4260 Communications Drive
Norcross, GA 30093
(770)381-4999
Ken Braun
*Atlanta

Martel Lift Systems
PO Box 45799
Omaha, NE 68145-0799
(402)330-1690
Rich Fidone
*Sioux City

Crown Lift Trucks
17700 E. 32nd Place
Aurora, CO 80011
(303)344-1000
Mike Wood
*Denver
Colorado Springs

Lift Truck Service Co.
3801 West River Drive
Davenport, IA 52802
(319)322-0983
Dick Byard
*Ames
Iowa City

Crown Lift Trucks
5940 American Road E.
Toledo, OH 43612
(419)729-0716
Barry Hill

Lift Stak & Stor
842 Vandalia Street
St. Paul, MN 55411
651-645-8668
Todd Forsberg

APPENDIX C: **Forklift Work Cage**

USE:

1. Assure the unit is locked onto forks or carriage using locking mechanism or chain as provided. Where a chain is used to secure work cage, ensure that it is attached to structurally sound material. Do not attach hook to mesh screen on work cage.

2. Keep the unit free of loose debris. Keep all on-board tools in a toolbox or carrier.

3. Do not use a damaged or defective unit.

4. Make sure forks are in the pockets on the work cage and the unit is secured to the fork lift truck.

5. Elevate the unit 12 inches off ground and put weight on each of four sides and corners to assure stability before going further aloft.

6. When elevating, keep a lookout overhead for obstacles. Both passenger and fork driver to be aware of this rule.

7. Do not move fork truck horizontally with work cage raised and passenger in the unit.

8. Do not overload.

9. Do not use electrical equipment without professionally approved grounding and safeguards.

10. Do not expose to continuing weather and corrosion.

11. Assure occupant is protected by side walls (42" high guardrails) and a latched gate is in place and working properly.

CROWN

Operator Training
ORDER FORM

P.O. No. _____

Date _____

Programs can ONLY be ordered from Crown Dealers.

The Crown Operator Training Program Includes:

- VHS Video Tape(s)
- Trainer's Manual with Tests and Answers
- Ten Operator Information Manuals or Truck Operator Manuals
- Ten Notice of Completion Certificates

Additional Manuals with Notice of Completion certificates are available for $2.25 each

Description	Complete Program Order No.	Cost ea.	Qty.	Operator Manual** Order No.	Cost ea.	Qty.	Price
It's Up to You	SF-12532-PRO	$200		PF-12476-C	$2.25		
Pedestrian Safety	SF-12477-PRO	$50					
Series B Power Lift Stackers	SF-12478-PRO	$50		PF-10035-C	$2.25		
Series M Intermediate-Duty Walkie Stackers	SF-12479-PRO	$50		PF-12442-C	$2.25		
Series GPW Walkie Pallet Trucks	SF-12480-PRO	$50		PF-12443-C	$2.25		
PW 3000 Series Walkie Pallet Trucks	SF-12481-PRO	$50		PF-12445-C	$2.25		
PE 3000 Series Rider Pallet Trucks	SF-12482-PRO	$75		PF-12403-C	$2.25		
PC 3000 Series Rider Pallet Trucks	SF-12483-PRO	$75		PF-12412-C	$2.25		
PR 3000 Series Rider Pallet Trucks	SF-12484-PRO	$75		PF-12413-C	$2.25		
TWR/TR 3000 Series Tow Tractors	SF-12485-PRO	$75		PF-10798-C	$2.25		
eries W/WR Heavy-Duty Walkie Stackers	SF-12486-PRO-W	$75		PF-12460-C	$2.25		
eries WB Heavy-Duty Walkie Stackers	SF-12486-PRO-WB	$75		PF-12462-C	$2.25		
RC 3000 Series Stand-Up Riders*	SF-12487-PRO	$100		PF-12398-C	$2.25		
Series SC Three Wheel Sit-Down Lift Trucks	SF-12488-PRO	$100		PF-12505-C	$2.25		
Series FC/FP Four Wheel Sit-Down Lift Trucks	SF-12489-PRO	$100		PF-12506-C	$2.25		
RR/RS/RD 3000 Series Narrow-Aisle, Stand-Up Riders*	SF-12490-PRO	$100		PF-12321-C	$2.25		
SP 3000 Series Stockpickers	SF-12491-PRO	$100		PF-12347-C	$2.25		
Series SP36/SP48 Stockpickers	SF-12492-PRO	$100		PF-12387-C	$2.25		
Series TS Turret Sideloaders	SF-12493-PRO	$125		PF-12495-C	$2.25		
Series TSP Turret Stockpickers	SF-12494-PRO	$125		PF-12496-C	$2.25		

Pre-3000 Series - (programs produced in 1982)

Includes Videotape(s), 10 Training Guides w/test & answers
One "Operator Manual" and 10 "Notice of Completion" certificates.

You and Your Stand-Up Rider*	SF-3521-PRO	$100		PF-3521-C	$2.25		
You and Your Narrow-Aisle Rider*	SF-4115-PRO	$100		PF-4115-C	$2.25		
You and Your Rider Pallet Truck or Tow Tractor	SF-4117-PRO	$100		PF-4117-C	$2.25		

* Includes supplimental "Stand-Up Rider Operator Safety Video"
** Includes "Notice of Completion" certificates

Total $ _____

Ordered by _____

Ship to _____

Authorized Signature _____

Printed in U.S.A.

OSHA Regulations (Standards - 29 CFR)
Powered industrial trucks. - 1910.178

OSHA Regulations (Standards - 29 CFR) - Table of Contents

- **Standard Number:** 1910.178
- **Standard Title:** Powered industrial trucks.
- **SubPart Number:** N
- **SubPart Title:** Materials Handling and Storage

Interpretation(s)

(a)

General requirements.

(a)(1)

This section contains safety requirements relating to fire protection, design, maintenance, and use of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. This section does not apply to compressed air or nonflammable compressed gas-operated industrial trucks, nor to farm vehicles, nor to vehicles intended primarily for earth moving or over-the-road hauling.

(a)(2)

All new powered industrial trucks acquired and used by an employer after the effective date specified in paragraph (b) of 1910.182 shall meet the design and construction requirements for powered industrial trucks established in the "American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1-1969", which is incorporated by reference as specified in Sec. 1910.6, except for vehicles intended primarily for earth moving or over-the-road hauling.

..1910.178(a)(3)

(a)(3)

Approved trucks shall bear a label or some other identifying mark indicating approval by the testing laboratory. See paragraph (a)(7) of this section and paragraph 405 of "American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1-1969", which is incorporated by reference in paragraph (a)(2) of this section and which provides that if the powered industrial truck is accepted by a nationally recognized testing laboratory it should be so marked.

(a)(4)

Modifications and additions which affect capacity and safe operation shall not be performed by

the customer or user without manufacturers prior written approval. Capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly.

(a)(5)

If the truck is equipped with front-end attachments other than factory installed attachments, the user shall request that the truck be marked to identify the attachments and show the approximate weight of the truck and attachment combination at maximum elevation with load laterally centered.

(a)(6)

The user shall see that all nameplates and markings are in place and are maintained in a legible condition.

(a)(7)

As used in this section, the term, "approved truck" or "approved industrial truck" means a truck that is listed or approved for fire safety purposes for the intended use by a nationally recognized testing laboratory, using nationally recognized testing standards. Refer to 1910.155(c)(3)(iv)(A) for definition of nationally recognized testing laboratory.

..1910.178(b)

(b)

Designations. For the purpose of this standard there are eleven different designations of industrial trucks or tractors as follows: D, DS, DY, E, ES, EE, EX, G, GS, LP, and LPS.

(b)(1)

The D designated units are units similar to the G units except that they are diesel engine powered instead of gasoline engine powered.

(b)(2)

The DS designated units are diesel powered units that are provided with additional safeguards to the exhaust, fuel and electrical systems. They may be used in some locations where a D unit may not be considered suitable.

(b)(3)

The DY designated units are diesel powered units that have all the safeguards of the DS units and in addition do not have any electrical equipment including the ignition and are equipped with temperature limitation features.

(b)(4)

The E designated units are electrically powered units that have minimum acceptable safeguards against inherent fire hazards.

..1910.178(b)(5)

(b)(5)

The ES designated units are electrically powered units that, in addition to all of the requirements for the E units, are provided with additional safeguards to the electrical system to prevent emission of hazardous sparks and to limit surface temperatures. They may be used in some locations where the use of an E unit may not be considered suitable.

(b)(6)

The EE designated units are electrically powered units that have, in addition to all of the requirements for the E and ES units, the electric motors and all other electrical equipment completely enclosed. In certain locations the EE unit may be used where the use of an E and ES unit may not be considered suitable.

(b)(7)

The EX designated units are electrically powered units that differ from the E, ES, or EE units in that the electrical fittings and equipment are so designed, constructed and assembled that the units may be used in certain atmospheres containing flammable vapors or dusts.

(b)(8)

The G designated units are gasoline powered units having minimum acceptable safeguards against inherent fire hazards.

(b)(9)

The GS designated units are gasoline powered units that are provided with additional safeguards to the exhaust, fuel, and electrical systems. They may be used in some locations where the use of a G unit may not be considered suitable.

(b)(10)

The LP designated unit is similar to the G unit except that liquefied petroleum gas is used for fuel instead of gasoline.

..1910.178(b)(11)

(b)(11)

The LPS designated units are liquefied petroleum gas powered units that are provided with additional safeguards to the exhaust, fuel, and electrical systems. They may be used in some locations where the use of an LP unit may not be considered suitable.

(b)(12)

The atmosphere or location shall have been classified as to whether it is hazardous or nonhazardous prior to the consideration of industrial trucks being used therein and the type of industrial truck required shall be as provided in paragraph (d) of this section for such location.

(c)

Designated locations.

(c)(1)

The industrial trucks specified under subparagraph (2) of this paragraph are the minimum types required but industrial trucks having greater safeguards may be used if desired.

(c)(2)

For specific areas of use see Table N-1 which tabulates the information contained in this section. References are to the corresponding classification as used in subpart S of this part.

(c)(2)(i)

Power-operated industrial trucks shall not be used in atmospheres containing hazardous concentration of acetylene, butadiene, ethylene oxide, hydrogen (or gases or vapors equivalent in hazard to hydrogen, such as manufactured gas), propylene oxide, acetaldehyde, cyclopropane, diethyl ether, ethylene, isoprene, or unsymmetrical dimethyl hydrazine (UDMH).

..1910.178(c)(2)(ii)

(c)(2)(ii)

-

(c)(2)(ii)(a)

Power-operated industrial trucks shall not be used in atmospheres containing hazardous concentrations of metal dust, including aluminum, magnesium, and their commercial alloys, other metals of similarly hazardous characteristics, or in atmospheres containing carbon black, coal or coke dust except approved power-operated industrial trucks designated as EX may be used in such atmospheres.

(c)(2)(ii)(b)

In atmospheres where dust of magnesium, aluminum or aluminum bronze may be present, fuses, switches, motor controllers, and circuit breakers of trucks shall have enclosures specifically approved for such locations.

(c)(2)(iii)

Only approved power-operated industrial trucks designated as EX may be used in atmospheres containing acetone, acrylonitrile, alcohol, ammonia, benzine, benzol, butane, ethylene dichloride, gasoline, hexane, lacquer solvent vapors, naphtha, natural gas, propane, propylene, styrene, vinyl acetate, vinyl chloride, or xylenes in quantities sufficient to produce explosive or ignitable mixtures and where such concentrations of these gases or vapors exist continuously, intermittently or periodically under normal operating conditions or may exist frequently because of repair, maintenance operations, leakage, breakdown or faulty operation of equipment.

..1910.178(c)(2)(iv)

(c)(2)(iv)

Power-operated industrial trucks designated as DY, EE, or EX may be used in locations where volatile flammable liquids or flammable gases are handled, processed or used, but in which the hazardous liquids, vapors or gases will normally be confined within closed containers or closed systems from which they can escape only in case of accidental rupture or breakdown of such containers or systems, or in the case of abnormal operation of equipment; also in locations in

which hazardous concentrations of gases or vapors are normally prevented by positive mechanical ventilation but which might become hazardous through failure or abnormal operation of the ventilating equipment; or in locations which are adjacent to Class I, Division 1 locations, and to which hazardous concentrations of gases or vapors might occasionally be communicated unless such communication is prevented by adequate positive-pressure ventilation from a source of clear air, and effective safeguards against ventilation failure are provided.

TABLE N-1. -- SUMMARY TABLE ON USE OF INDUSTRIAL TRUCKS IN VARIOUS LOCATIONS

Classes	Unclassified locations	Class I locations	Class II locations	Class III locations
Description of classes.	Locations not possessing atmospheres as described in other columns.	Locations in which flammable gases or vapors are, or may be, present in the air in quantities sufficient to produce explosive or ignitable mixtures.	Locations which are hazardous because of the presence of combustible dust.	Locations where easily ignitable fibers or flyings are present but not likely to be in suspension in quantities sufficient to produce ignitable mixtures.
Groups in classes	None	A	B	C	D
Examples of locations or atmospheres in classes and groups.	Piers and wharves inside and outside general storage, general industrial or	Acetylene	Hydrogen Ethyl ether Naphtha Alcohols Acetone Lacquer solvent Benzene		Gasoline

commercial properties.

(Continued)

E	F	G	None
Metal dust	Carbon black coal dust, coke dust	Grain dust, flour dust, starch dust, organic dust.	Baled waste, cocoa fiber, cotton, excelsior, hemp, istle, jute, kapok, oakum, sisal, Spanish moss, synthetic fibers, tow.

	1	2
Divisions (nature of hazardous conditions)	None	Above condition exists continuously, intermittently, or periodically under normal operating conditions.	Above condition may occur accidentally as due to a puncture of a storage drum.

(Continued)

1	2	1	2
Explosive mixture may be present under normal operating conditions, or where failure of	Explosive mixture not normally present, but where deposits of dust may cause heat	Locations in which easily ignitable fibers or materials producing combustible flyings	Locations in which easily ignitable fibers are stored or handled (except in the process

equipment may cause the condition to exist simultaneously with arcing or sparking of electrical equipment, or where dusts of an electrically conducting nature may be present.	rise in electrical equipment, or where such deposits may be ignited by arcs or sparks from electrical equipment.	are handled, manufactured, or used.	of manufacture).

Authorized uses of trucks by types in groups of classes and divisions

Groups in classes	None	A	B	C	D	A	B	C
Type of truck authorized:								
Diesel:								
Type D	D**	...	....	....	....	....	....	....
Type DS	.....	....	....	....	....	....	....	....
Type DY	.....	....	....	....	....	....	....	....
Electric:								
Type E	E**	...	....	....	....	....	....	....
Type ES	.....	....	....	....	....	....	....	....
Type EE	.....	....	....	....	....	....	....	....
Type EX	.....	....	....	....	EX .	....	....	....
Gasoline:								
Type G	G**	...	....	....	....	....	....	....
Type GS	.....	....	....	....	....	....	....	....
LP-Gas:								
Type LP	LP**	..	....	....	....	....	....	....
Type LPS	.....	....	....	....	....	....	....	....
Paragraph Ref. in No. 505.	210.211	(a)	201 (a)	203 (a)	209			

(Continued)

Authorized uses of trucks by types in groups of classes and divisions

Groups in classes	D	E	F	G	E	F	G	None	None
Type of truck authorized:									
Diesel:									
Type D	.....	....	....	....	....	....	....	....	....
Type DS	.....	DS .	....	....	....	....	....	DS .	.... DS
Type DY	.....	DY .	....	....	....	....	....	DY .	DY . DY
Electric:									
Type E	.....	....	....	....	....	....	....	....	.... E
Type ES	.....	ES .	....	....	....	....	....	ES .	.... ES
Type EE	.....	EE .	....	....	....	....	....	EE .	EE . EE
Type EX	.....	EX .	....	EX .	EX .	....	....	EX .	EX . EX
Gasoline:									
Type G	.....	....	....	....	....	....	....	....	....
Type GS	.....	GS .	....	....	....	....	....	GS .	.... GS
LP-Gas:									
Type LP	.....	....	....	....	....	....	....	....	....
Type LPS	....	LPS.	....	....	....	....	....	LPS.	.... LPS
Paragraph Ref. in No. 505.	204 (a), (b)		202 (a)	205 (a)		209 (a) (b)	206 (a),	207 (a)	208 (a)

** Trucks conforming to these types may also be used
-- see subdivision (c)(2)(x) and (c)(2)(xii) of this section.

(c)(2)(v)

In locations used for the storage of hazardous liquids in sealed containers or liquified or compressed gases in containers, approved power-operated industrial trucks designated as DS, ES, GS, or LPS may be used. This classification includes locations where volatile flammable liquids or flammable gases or vapors are used, but which, would become hazardous only in case of an accident or of some unusual operating condition. The quantity of hazardous material that might escape in case of accident, the adequacy of ventilating equipment, the total area involved, and the record of the industry or business with respect to explosions or fires are all factors that should receive consideration in determining whether or not the DS or DY, ES, EE, GS, LPS designated truck possesses sufficient safeguards for the location. Piping without valves, checks, meters and similar devices would not ordinarily be deemed to introduce a hazardous condition even though used for hazardous liquids or gases. Locations used for the storage of hazardous liquids or of liquified or compressed gases in sealed containers would not normally be considered hazardous unless subject to other hazardous conditions also.

..1910.178(c)(2)(vi)

(c)(2)(vi)

-

(c)(2)(vi)(a)

Only approved power operated industrial trucks designated as EX shall be used in atmospheres in which combustible dust is or may be in suspension continuously, intermittently, or periodically under normal operating conditions, in quantities sufficient to produce explosive or ignitable mixtures, or where mechanical failure or abnormal operation of machinery or equipment might cause such mixtures to be produced.

(c)(2)(vi)(b)

The EX classification usually includes the working areas of grain handling and storage plants, room containing grinders or pulverizers, cleaners, graders, scalpers, open conveyors or spouts, open bins or hoppers, mixers, or blenders, automatic or hopper scales, packing machinery, elevator heads and boots, stock distributors, dust and stock collectors (except all-metal collectors vented to the outside), and all similar dust producing machinery and equipment in grain processing plants, starch plants, sugar pulverizing plants, malting plants, hay grinding plants, and other occupancies of similar nature; coal pulverizing plants (except where the pulverizing equipment is essentially dust tight); all working areas where metal dusts and powders are produced, processed, handled, packed, or stored (except in tight containers); and other similar locations where combustible dust may, under normal operating conditions, be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

..1910.178(c)(2)(vii)

(c)(2)(vii)

Only approved power-operated industrial trucks designated as DY, EE, or EX shall be used in atmospheres in which combustible dust will not normally be in suspension in the air or will not be likely to be thrown into suspension by the normal operation of equipment or apparatus in quantities sufficient to produce explosive or ignitable mixtures but where deposits or accumulations of such dust may be ignited by arcs or sparks originating in the truck.

(c)(2)(viii)

Only approved power-operated industrial trucks designated as DY, EE, or EX shall be used in locations which are hazardous because of the presence of easily ignitable fibers or flyings but in which such fibers or flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures.

(c)(2)(ix)

Only approved power-operated industrial trucks designated as DS, DY, ES, EE, EX, GS, or LPS shall be used in locations where easily ignitable fibers are stored or handled, including outside storage, but are not being processed or manufactured. Industrial trucks designated as E, which have been previously used in these locations may be continued in use.

(c)(2)(x)

On piers and wharves handling general cargo, any approved power-operated industrial truck

designated as Type D, E, G, or LP may be used, or trucks which conform to the requirements for these types may be used.

..1910.178(c)(2)(xi)

(c)(2)(xi)

If storage warehouses and outside storage locations are hazardous only the approved power-operated industrial truck specified for such locations in this paragraph (c) (2) shall be used. If not classified as hazardous, any approved power-operated industrial truck designated as Type D, E, G, or LP may be used, or trucks which conform to the requirements for these types may be used.

(c)(2)(xii)

If general industrial or commercial properties are hazardous, only approved power-operated industrial trucks specified for such locations in this paragraph (c) (2) shall be used. If not classified as hazardous, any approved power-operated industrial truck designated as Type D, E, G, or LP may be used, or trucks which conform to the requirements of these types may be used.

(d)

Converted industrial trucks. Power-operated industrial trucks that have been originally approved for the use of gasoline for fuel, when converted to the use of liquefied petroleum gas fuel in accordance with paragraph (q) of this section, may be used in those locations where G, GS or LP, and LPS designated trucks have been specified in the preceding paragraphs.

(e)

Safety guards.

(e)(1)

High Lift Rider trucks shall be fitted with an overhead guard manufactured in accordance with paragraph (a) (2) of this section, unless operating conditions do not permit.

(e)(2)

If the type of load presents a hazard, the user shall equip fork trucks with a vertical load backrest extension manufactured in accordance with paragraph (a) (2) of this section.

..1910.178(f)

(f)

Fuel handling and storage.

(f)(1)

The storage and handling of liquid fuels such as gasoline and diesel fuel shall be in accordance with NFPA Flammable and Combustible Liquids Code (NFPA No. 30-1969), which is incorporated by reference as specified in Sec. 1910.6.

(f)(2)

The storage and handling of liquefied petroleum gas fuel shall be in accordance with NFPA Storage and Handling of Liquefied Petroleum Gases (NFPA No. 58-1969), which is incorporated by reference as specified in Sec. 1910.6.

(g)

Changing and charging storage batteries.

(g)(1)

Battery charging installations shall be located in areas designated for that purpose.

(g)(2)

Facilities shall be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.

(g)(3)

[Reserved]

(g)(4)

A conveyor, overhead hoist, or equivalent material handling equipment shall be provided for handling batteries.

(g)(5)

Reinstalled batteries shall be properly positioned and secured in the truck.

..1910.178(g)(6)

(g)(6)

A carboy tilter or siphon shall be provided for handling electrolyte.

(g)(7)

When charging batteries, acid shall be poured into water; water shall not be poured into acid.

(g)(8)

Trucks shall be properly positioned and brake applied before attempting to change or charge batteries.

(g)(9)

Care shall be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) shall be open to dissipate heat.

(g)(10)

Smoking shall be prohibited in the charging area.

(g)(11)

Precautions shall be taken to prevent open flames, sparks, or electric arcs in battery charging areas.

(g)(12)

Tools and other metallic objects shall be kept away from the top of uncovered batteries.

(h)

Lighting for operating areas.

(h)(1)

[Reserved]

..1910.178(h)(2)

(h)(2)

Where general lighting is less than 2 lumens per square foot, auxiliary directional lighting shall be provided on the truck.

(i)

Control of noxious gases and fumes.

(i)(1)

Concentration levels of carbon monoxide gas created by powered industrial truck operations shall not exceed the levels specified in 1910.1000.

(j)

Dockboards (bridge plates). See 1910.30(a).

(k)

Trucks and railroad cars.

(k)(1)

The brakes of highway trucks shall be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.

(k)(2)

Wheel stops or other recognized positive protection shall be provided to prevent railroad cars from moving during loading or unloading operations.

(k)(3)

Fixed jacks may be necessary to support a semitrailer and prevent upending during the loading or unloading when the trailer is not coupled to a tractor.

(k)(4)

Positive protection shall be provided to prevent railroad cars from being moved while dockboards or bridge plates are in position.

..1910.178(l)

(l)

Operator training.

(l)(1)

Safe operation.

(l)(1)(i)

The employer shall ensure that each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of the training and evaluation specified in this paragraph (l).

(l)(1)(ii)

Prior to permitting an employee to operate a powered industrial truck (except for training purposes), the employer shall ensure that each operator has successfully completed the training required by this paragraph (l), except as permitted by paragraph (l)(5).

(l)(2)

Training program implementation.

(l)(2)(i)

Trainees may operate a powered industrial truck only:

(l)(2)(i)(A)

Under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence; and

(l)(2)(i)(B)

Where such operation does not endanger the trainee or other employees.

(l)(2)(ii)

Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

(l)(2)(iii)

All operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence.

(l)(3)

Training program content. Powered industrial truck operators shall receive initial training in the following topics, except in topics which the employer can demonstrate are not applicable to safe operation of the truck in the employer's workplace.

(l)(3)(i)

Truck-related topics:

(l)(3)(i)(A)

Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate;

(l)(3)(i)(B)

Differences between the truck and the automobile;

(l)(3)(i)(C)

Truck controls and instrumentation: where they are located, what they do, and how they work;

(l)(3)(i)(D)

Engine or motor operation;

(l)(3)(i)(E)

Steering and maneuvering;

(l)(3)(i)(F)

Visibility (including restrictions due to loading);

(l)(3)(i)(G)

Fork and attachment adaptation, operation, and use limitations;

(l)(3)(i)(H)

Vehicle capacity;

(l)(3)(i)(I)

Vehicle stability;

(l)(3)(i)(J)

Any vehicle inspection and maintenance that the operator will be required to perform;

(l)(3)(i)(K)

Refueling and/or charging and recharging of batteries;

(l)(3)(i)(L)

Operating limitations;

(l)(3)(i)(M)

Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.

(l)(3)(ii)

Workplace-related topics:

(l)(3)(ii)(A)

Surface conditions where the vehicle will be operated;

(l)(3)(ii)(B)

Composition of loads to be carried and load stability;

(l)(3)(ii)(C)

Load manipulation, stacking, and unstacking;

(l)(3)(ii)(D)

Pedestrian traffic in areas where the vehicle will be operated;

(l)(3)(ii)(E)

Narrow aisles and other restricted places where the vehicle will be operated;

(l)(3)(ii)(F)

Hazardous (classified) locations where the vehicle will be operated;

(l)(3)(ii)(G)

Ramps and other sloped surfaces that could affect the vehicle's stability;

(l)(3)(ii)(H)

Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust;

(l)(3)(ii)(I)

Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

(l)(3)(iii)

The requirements of this section.

(l)(4)

Refresher training and evaluation.

(l)(4)(i)

Refresher training, including an evaluation of the effectiveness of that training, shall be conducted as required by paragraph (l)(4)(ii) to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.

(l)(4)(ii)

Refresher training in relevant topics shall be provided to the operator when:

(l)(4)(ii)(A)

The operator has been observed to operate the vehicle in an unsafe manner;

(l)(4)(ii)(B)

The operator has been involved in an accident or near-miss incident;

(l)(4)(ii)(C)

The operator has received an evaluation that reveals that the operator is not operating the truck safely;

(l)(4)(ii)(D)

The operator is assigned to drive a different type of truck; or

(l)(4)(ii)(E)

A condition in the workplace changes in a manner that could affect safe operation of the truck.

(l)(4)(iii)

An evaluation of each powered industrial truck operator's performance shall be conducted at least once every three years.

(l)(5)

Avoidance of duplicative training. If an operator has previously received training in a topic specified in paragraph (l)(3) of this section, and such training is appropriate to the truck and

working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.

(l)(6)

Certification. The employer shall certify that each operator has been trained and evaluated as required by this paragraph (l). The certification shall include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

(l)(7)

Dates. The employer shall ensure that operators of powered industrial trucks are trained, as appropriate, by the dates shown in the following table.

If the employee was hired:	The intial training and evaluation of that must be completed:
Before December 1, 1999 ...	By December 1, 1999.
After December 1, 1999	Before the employee is assigned to operate a powered industrial truck.

(l)(8)

Appendix A to this section provides non-mandatory guidance to assist employers in implementing this paragraph (l). This appendix does not add to, alter, or reduce the requirements of this section.

(m)

Truck operations.

(m)(1)

Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.

(m)(2)

No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

(m)(3)

Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of trucks is authorized.

(m)(4)

The employer shall prohibit arms or legs from being placed between the uprights of the mast or outside the running lines of the truck.

(m)(5)

-

(m)(5)(i)

When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline.

(m)(5)(ii)

A powered industrial truck is unattended when the operator is 25 ft. or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

..1910.178(m)(5)(iii)

(m)(5)(iii)

When the operator of an industrial truck is dismounted and within 25 ft. of the truck still in his view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.

(m)(6)

A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, or platform or freight car. Trucks shall not be used for opening or closing freight doors.

(m)(7)

Brakes shall be set and wheel blocks shall be in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semitrailer during loading or unloading when the trailer is not coupled to a tractor. The flooring of trucks, trailers, and railroad cars shall be checked for breaks and weakness before they are driven onto.

(m)(8)

There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.

(m)(9)

An overhead guard shall be used as protection against falling objects. It should be noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.

(m)(10)

A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.

..1910.178(m)(11)

(m)(11)

Only approved industrial trucks shall be used in hazardous locations.

(m)(12)

Whenever a truck is equipped with vertical only, or vertical and horizontal controls elevatable with the lifting carriage or forks for lifting personnel, the following additional precautions shall be taken for the protection of personnel being elevated.

(m)(12)(i)

Use of a safety platform firmly secured to the lifting carriage and/or forks.

(m)(12)(ii)

Means shall be provided whereby personnel on the platform can shut off power to the truck.

(m)(12)(iii)

Such protection from falling objects as indicated necessary by the operating conditions shall be provided.

(m)(13)

[Reserved]

(m)(14)

Fire aisles, access to stairways, and fire equipment shall be kept clear.

..1910.178(n)

(n)

Traveling.

(n)(1)

All traffic regulations shall be observed, including authorized plant speed limits. A safe distance shall be maintained approximately three truck lengths from the truck ahead, and the truck shall be kept under control at all times.

(n)(2)

The right of way shall be yielded to ambulances, fire trucks, or other vehicles in emergency situations.

(n)(3)

Other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations shall not be passed.

(n)(4)

The driver shall be required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.

(n)(5)

Railroad tracks shall be crossed diagonally wherever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.

(n)(6)

The driver shall be required to look in the direction of, and keep a clear view of the path of travel.

(n)(7)

Grades shall be ascended or descended slowly.

(n)(7)(i)

When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade.

..1910.178(n)(7)(ii)

(n)(7)(ii)

[Reserved]

(n)(7)(iii)

On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.

(n)(8)

Under all travel conditions the truck shall be operated at a speed that will permit it to be brought to a stop in a safe manner.

(n)(9)

Stunt driving and horseplay shall not be permitted.

(n)(10)

The driver shall be required to slow down for wet and slippery floors.

(n)(11)

Dockboard or bridgeplates, shall be properly secured before they are driven over. Dockboard or bridgeplates shall be driven over carefully and slowly and their rated capacity never exceeded.

(n)(12)

Elevators shall be approached slowly, and then entered squarely after the elevator car is properly leveled. Once on the elevator, the controls shall be neutralized, power shut off, and the brakes set.

(n)(13)

Motorized hand trucks must enter elevator or other confined areas with load end forward.

..1910.178(n)(14)

(n)(14)

Running over loose objects on the roadway surface shall be avoided.

(n)(15)

While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

(o)

Loading.

(o)(1)

Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.

(o)(2)

Only loads within the rated capacity of the truck shall be handled.

(o)(3)

The long or high (including multiple-tiered) loads which may affect capacity shall be adjusted.

(o)(4)

Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.

(o)(5)

A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.

..1910.178(o)(6)

(o)(6)

Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

(p)

Operation of the truck.

(p)(1)

If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition.

(p)(2)

Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided.

(p)(3)

Spillage of oil or fuel shall be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.

(p)(4)

No truck shall be operated with a leak in the fuel system until the leak has been corrected.

(p)(5)

Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

(q)

Maintenance of industrial trucks.

(q)(1)

Any power-operated industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel.

..1910.178(q)(2)

(q)(2)

No repairs shall be made in Class I, II, and III locations.

(q)(3)

Those repairs to the fuel and ignition systems of industrial trucks which involve fire hazards shall be conducted only in locations designated for such repairs.

(q)(4)

Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.

(q)(5)

All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design.

(q)(6)

Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts, except as provided in paragraph (q)(12) of this section. Additional counterweighting of fork trucks shall not be done unless approved by the truck manufacturer.

..1910.178(q)(7)

(q)(7)

Industrial trucks shall be examined before being placed in service, and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Where industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

(q)(8)

Water mufflers shall be filled daily or as frequently as is necessary to prevent depletion of the supply of water below 75 percent of the filled capacity. Vehicles with mufflers having screens or other parts that may become clogged shall not be operated while such screens or parts are clogged. Any vehicle that emits hazardous sparks or flames from the exhaust system shall immediately be removed from service, and not returned to service until the cause for the emission of such sparks and flames has been eliminated.

(q)(9)

When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until the cause for such overheating has been eliminated.

(q)(10)

Industrial trucks shall be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 deg. F.) solvents shall not be used. High flash point (at or above 100 deg. F.) solvents may be used. Precautions regarding toxicity, ventilation, and fire hazard shall be consonant with the agent or solvent used.

(q)(11)

[Reserved]

(q)(12)

Industrial trucks originally approved for the use of gasoline for fuel may be converted to liquefied petroleum gas fuel provided the complete conversion results in a truck which embodies the features specified for LP or LPS designated trucks. Such conversion equipment shall be approved. The description of the component parts of this conversion system and the recommended method of installation on specific trucks are contained in the "Listed by Report."

[39 FR 23502, June 27, 1974, as amended at 40 FR 23073, May 28, 1975; 43 FR 49749, Oct. 24, 1978; 49 FR 5322, Feb. 10, 1984; 53 FR 12122, Apr. 12, 1988; 55 FR 32015, Aug. 6, 1990; 61 FR 9227, March 7, 1996; 63 FR 66270, Dec. 1, 1998]

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- **Standard Number:** 1910.178 App A
- **Standard Title:** Powered industrial trucks.
- **SubPart Number:** N
- **SubPart Title:** Stability of Powered Industrial Trucks (Non-mandatory Appendix to Paragraph (l) of this section)

Appendix A -- Stability of Powered Industrial Trucks (Non-mandatory Appendix to Paragraph (l) of This Section)

A-1. ***Definitions.***

The following definitions help to explain the principle of stability:

Center of gravity is the point on an object at which all of the object's weight is concentrated. For symmetrical loads, the center of gravity is at the middle of the load.

Counterweight is the weight that is built into the truck's basic structure and is used to offset the load's weight and to maximize the vehicle's resistance to tipping over.

Fulcrum is the truck's axis of rotation when it tips over.

Grade is the slope of a surface, which is usually measured as the number of feet of rise or fall over a hundred foot horizontal distance (the slope is expressed as a percent).

Lateral stability is a truck's resistance to overturning sideways.

Line of action is an imaginary vertical line through an object's center of gravity.

Load center is the horizontal distance from the load's edge (or the fork's or other attachment's vertical face) to the line of action through the load's center of gravity.

Longitudinal stability is the truck's resistance to overturning forward or rearward.

Moment is the product of the object's weight times the distance from a fixed point (usually the fulcrum). In the case of a powered industrial truck, the distance is measured from the point at which the truck will tip over to the object's line of action. The distance is always measured perpendicular to the line of action.

Track is the distance between the wheels on the same axle of the truck.

Wheelbase is the distance between the centerline of the vehicle's front and rear wheels.

A-2. ***General.***

A-2.1. Determining the stability of a powered industrial truck is simple once a few basic principles are understood. There are many factors that contribute to a vehicle's stability: the vehicle's wheelbase, track, and height; the load's weight distribution; and the vehicle's counterweight location (if the vehicle is so equipped).

A-2.2. The "stability triangle," used in most stability discussions, demonstrates stability simply.

A-3. ***Basic Principles.***

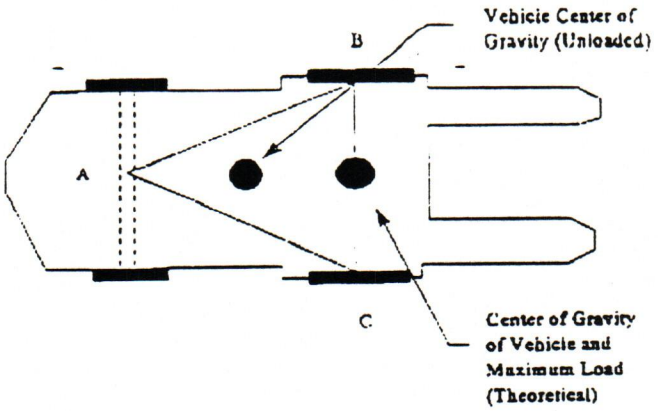
A-3.1. Whether an object is stable depends on the object's moment at one end of a system being greater than, equal to, or smaller than the object's moment at the system's other end. This principle can be seen in the way a see-saw or teeter-totter works: that is, if the product of the load and distance from the fulcrum (moment) is equal to the moment at the device's other end, the device is balanced and it will not move. However, if there is a greater moment at one end of the device, the device will try to move downward at the end with the greater moment.

A-3.2. The longitudinal stability of a counterbalanced powered industrial truck depends on the vehicle's moment and the load's moment. In other words, if the mathematic product of the load moment (the distance from the front wheels, the approximate point at which the vehicle would tip forward) to the load's center of gravity times the load's weight is less than the vehicle's moment, the system is balanced and will not tip forward. However, if the load's moment is greater than the vehicle's moment, the greater load-moment will force the truck to tip forward.

A-4. ***The Stability Triangle.***

A-4.1. Almost all counterbalanced powered industrial trucks have a three-point suspension system, that is, the vehicle is supported at three points. This is true even if the vehicle has four wheels. The truck's steer axle is attached to the truck by a pivot pin in the axle's center. When the points are connected with imaginary lines, this three-point support forms a triangle called the stability triangle. Figure 1 depicts the stability triangle.

Figure 1.

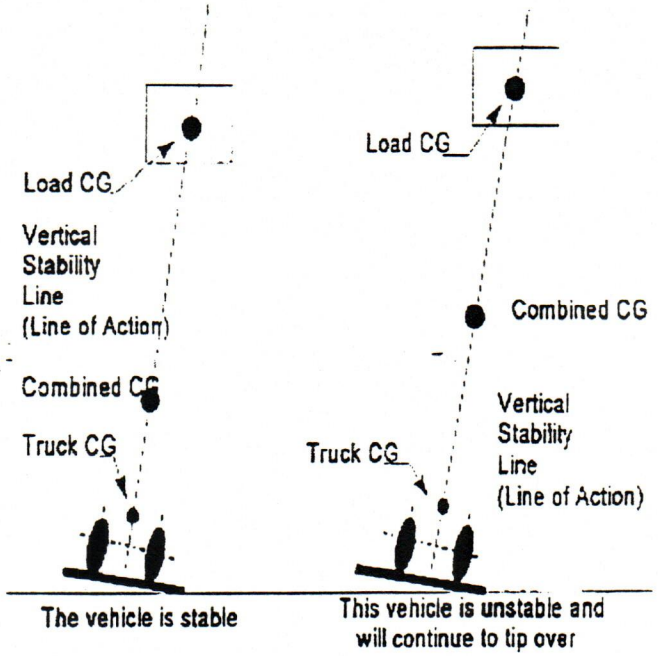


Notes:

1. When the vehicle is loaded, the combined center of gravity (CG) shifts toward line B-C. Theoretically the maximum load will result in the CG at the line B-C. In actual practice, the combined CG should never be at line B-C.
2. The addition of additional counterweight will cause the truck CG to shift toward point A and result in a truck that is less stable laterally.

A-4.2. When the vehicle's line of action, or load center, falls within the stability triangle, the vehicle is stable and will not tip over. However, when the vehicle's line of action or the vehicle/ load combination falls outside the stability triangle, the vehicle is unstable and may tip over. (See Figure 2.)

Figure 2.



A-5. ***Longitudinal Stability.***

A-5.1. The axis of rotation when a truck tips forward is the front wheels' points of contact with the pavement. When a powered industrial truck tips forward, the truck will rotate about this line. When a truck is stable, the vehicle-moment must exceed the load-moment. As long as the vehicle-moment is equal to or exceeds the load-moment, the vehicle will not tip over. On the other hand, if the load moment slightly exceeds the vehicle-moment, the truck will begin to tip forward, thereby causing the rear to lose contact with the floor or ground and resulting in loss of steering control. If the load-moment greatly exceeds the vehicle moment, the truck will tip forward.

A-5.2. To determine the maximum safe load-moment, the truck manufacturer normally rates the truck at a maximum load at a given distance from the front face of the forks. The specified distance from the front face of the forks to the line of action of the load is commonly called the load center. Because larger trucks normally handle loads that are physically larger, these vehicles have greater load centers. Trucks with a capacity of 30,000 pounds or less are normally rated at a given load weight at a 24-inch load center. Trucks with a capacity greater than 30,000 pounds are normally rated at a given load weight at a 36- or 48-inch load center. To safely operate the vehicle, the operator should always check the data plate to determine the maximum allowable weight at the rated load center.

A-5.3. Although the true load-moment distance is measured from the front wheels, this distance is greater than the distance from the front face of the forks. Calculating the maximum allowable load- moment using the load-center distance always provides a lower load- moment than the truck was designed to handle. When handling unusual loads, such as those that are larger than 48 inches long (the center of gravity is greater than 24 inches) or that have an offset center of gravity, etc., a maximum allowable

load-moment should be calculated and used to determine whether a load can be safely handled. For example, if an operator is operating a 3000 pound capacity truck (with a 24-inch load center), the maximum allowable load-moment is 72,000 inch-pounds (3,000 times 24). If a load is 60 inches long (30-inch load center), then the maximum that this load can weigh is 2,400 pounds (72,000 divided by 30).

A-6. ***Lateral Stability.***

A-6.1. The vehicle's lateral stability is determined by the line of action's position (a vertical line that passes through the combined vehicle's and load's center of gravity) relative to the stability triangle. When the vehicle is not loaded, the truck's center of gravity location is the only factor to be considered in determining the truck's stability. As long as the line of action of the combined vehicle's and load's center of gravity falls within the stability triangle, the truck is stable and will not tip over. However, if the line of action falls outside the stability triangle, the truck is not stable and may tip over. Refer to Figure 2.

A-6.2. Factors that affect the vehicle's lateral stability include the load's placement on the truck, the height of the load above the surface on which the vehicle is operating, and the vehicle's degree of lean.

A-7. ***Dynamic Stability.***

A-7.1. Up to this point, the stability of a powered industrial truck has been discussed without considering the dynamic forces that result when the vehicle and load are put into motion. The weight's transfer and the resultant shift in the center of gravity due to the dynamic forces created when the machine is moving, braking, cornering, lifting, tilting, and lowering loads, etc., are important stability considerations.

A-7.2. When determining whether a load can be safely handled, the operator should exercise extra caution when handling loads that cause the vehicle to approach its maximum design characteristics. For example, if an operator must handle a maximum load, the load should be carried at the lowest position possible, the truck should be accelerated slowly and evenly, and the forks should be tilted forward cautiously. However, no precise rules can be formulated to cover all of these eventualities.

[63 FR 66270, Dec. 1, 1998]

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